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From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
MICHAEL E. ATTAYA
CESARI AND MCKENNA, LLP
88 BLACK FALCON AVENUE - SUITE 271
BOSTON, MA 02210

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SEP 27 2004

CESARI & MCKENNA

PCT

WRITTEN OPINION

(PCT Rule 66)

Date of Mailing
(day/month/year)

20 SEP 2004

Applicant's or agent's file reference

108030-005PC

REPLY DUE

within 2 months/days from
the above date of mailing

International application No.

PCT/US03/30061

International filing date (day/month/year)

24 September 2003 (24.09.2003)

Priority date (day/month/year)

26 September 2002 (26.09.2002)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): A45F 3/04, 3/16 C02F1/32 and US Cl.: 210/222,223,87; 422/186.3

Applicant

HYDRO-PHOTON, INC

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bis*.
For an informal communication with the examiner, see Rule 66.6

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 26 January 2005 (26.01.2005)

Name and mailing address of the IPEA/US

Mail Stop PCT, Attn: IPEA/ US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Mr. Terry K. Cecil

Jean Proctor
Paralegal Specialist

Telephone No. (571) 272-1700

Form PCT/IPEA/408 (cover sheet)(July 1998)

10.2.04- cu: Resp to written Opinion

11.2.04- Due: " " " "

I. Basis of the opinion

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☒ the description:
 pages 1-7, as originally filed
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____
- ☒ the claims:
 pages 8-13, as originally filed
 pages NONE, as amended (together with any statement) under Article 19
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____
- ☒ the drawings:
 pages 1-6, as originally filed
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages NONE, as originally filed
 pages NONE, filed with the demand
 pages NONE, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

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V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims <u>1-14, 18, 21-23, 25, 27-31, 34, 36, 41 and 43</u>	YES
	Claims <u>15-17, 19-20, 24, 26, 32-33, 35, 37-40 and 42</u>	NO
Inventive Step (IS)	Claims <u>1-14, 18, 21-23, 30-31, 34 and 41</u>	YES
	Claims <u>15-17, 19-20, 24-29, 32-33, 35-40 and 42-43</u>	NO
Industrial Applicability (IA)	Claims <u>1-43</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 15-17, 19-20, 24, 26, 32-33, 35, 37-40 and 42 lack novelty under PCT Article 33(2) as being anticipated by LeBleu (U.S. 5,845,504). LeBleu teaches a portable purification module including tubing 26A and various sensors (28 and col. 10, lines 57-59), a UV solid state device (col. 16, line 39) treating water flowing through the tube and a battery power supply (col. 1, line 19). Manual switches and valves are also taught. A wider section for flow through 29 is also shown. A water filter 31 is also taught.

Claims 25, 27-29, 36 and 43 lack an inventive step under PCT Article 33(3) as being obvious over LeBleu. As for claims 25, 36, and 43, it is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to optimize the amount of radiation applied to the water depending upon the types and concentrations of contaminants present. As for claim 27, LeBleu teaches that his UV generator can be located in the cover of the container (col. 16, line 27). It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have a plurality of UV solid state devices since duplication of parts is within ordinary skill and a plurality of UV devices spaced along the cover would more efficiently treat the water. As for claims 28-29, a manually-activated switch is known (col. 10, lines 1-5).

Claims 1-14, 18, 21-23, 30-31, 34 and 41 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a wearable hydration system including a wearable bladder holder of claims 1-14; nor the push-pull valve or solar cells that are used to charge the batteries in combination with the purification modules of claims 18, 21, 23, 34 and 41. The prior art also does not suggest the wearable pack to be made of photovoltaic material of claims 22 and 30-31.

Claims 1-43 meet the criteria set out in PCT Article 33(4), and thus meet the industrial applicability because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----

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VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

Claim 39 is objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claim 39 depends from itself and is considered to be indefinite. For examination purposes, claim 39 is taken to depend from claim 38.

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.